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BISHOP DISTRICT, CALIFORNIA

Although the Bishop region of eastern California was never organized as a formal mining district, it has been highly productive in minerals. The earliest mines were for gold and silver; today the chief mineral product is tungsten. Accurate records of the precious metals taken from the mines are lacking, but the total worth has been estimated as about five million dollars. The tungsten mines, far more productive, began operating about the time of World War I, and have been worked intermittently since then. Altogether, the tungsten won from mines of the Bishop area has been worth nearly 100 million dollars.

The town of Bishop and the region about it are in some of California's most scenic and geologically interesting land. To the west, the steep east face of the high Sierra Nevada towers above Owens Valley; to the east are the mountains and valleys of the desert country of the Basin Ranges. Many of the peaks along the saw-toothed Sierran crest are more than 13,000 feet in height; the highest point of the crest in the Bishop area is North Palisade peak, measured at 14,242 feet. In many places the divide between the peaks is a knife-edged ridge,



View west toward the high peaks of the Sierra Nevada.



Water from some springs in the Bishop area is hot--this spring flows at 81° C.

passable in only a few places on foot. The upper slopes are largely steep-walled glacial cirques, now filled with talus. Glacial moraines commonly fringe the cirque basins on the lower sides, and extend downward toward the valley.

The Sierra Nevada is underlain chiefly by a mosaic of granitic rocks made up of many separate intrusive masses that have sharp boundaries. On the basis of the amount of radiogenic products in minerals of these rocks, research workers estimate their age to be between 80 and 95 million years, that is, Cretaceous. Within this mosaic are masses of other igneous rocks and older metamorphic rocks, including metavolcanic rocks of Mesozoic age and metasedimentary rocks, chiefly of Paleozoic age.

Owens and adjacent valleys, in which the towns of Bishop, Laws, and Big Pine lie, are flat plains flanked by alluvial fans. Most of the fans are of Quaternary age, but some may be older.